

Work Order ID 74779

October 6, 2011 11:35:39 AM

74779

Page 1

Item ID: D3196-1

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Bar

Start Date: 10/06/11

Start Qty: 4.00 *4*

Required Date: 10/17/11

Req'd Qty: 4.00 *4*

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: M.L. 5

Date: 11/10/09 Tooling:

Date: _____

Run

Start

NR1

QC: _____

Date: _____ SPC (Y/N): _____

Date: _____

Stop

NR2

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

| Draw Nbr | Revision Nbr | | | | | | | | |
|----------|--------------|--|--|--|--|--|--|--|--|
| D3196 | Rev C | | | | | | | | |

100

100

BAND SAW

Bandsaw

Jeaspa Bandsaw

0.00

0.00

F.K. 11/10/30

8 ♂

110

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

HAAS CNC vertical machine #1

0.00

0.00

F.K. 11/10/31

8 ♂

120

120

QC2- Inspect parts off machine FAI/FAIB

QC

Quality Control

0.00

0.00

F.K. 11/10/31

8 ♂

WORK ORDER CHANGES

| W/O: | | PROCEDURE CHANGE | By | Date | Qty | Approval | Approval |
|------|------|------------------|----|------|-----|-------------------------|--------------|
| DATE | STEP | | | | | Chief Eng / Prod Mgr | QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE (NCR)

| NCR: | | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
|------|------|--------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

Work Order ID 74779

October 6, 2011 11:35:39 AM

74779

Page 2

Item ID: D3196-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Bar

Stop

NS2

Start Date: 10/06/11 Start Qty: 4.00

4

Cust Item ID:

Required Date: 10/17/11 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

130

QC8- Inspect parts - second check

130

QC

Quality Control

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

140

Chemical Conversion Coat per QSI005 4.1

0.00

140

HandFinish

Hand Finishing

8.4 11/10/01

8 6

150

Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3

0.00

150

Powdercoat

Powder Coating

Memo

11-30

0.00

START TIME:

11

OVEN TEMPERATURE:

320°F

12°F

M 118489

8/8/11 11/10/02

8/8/11 11/10/02

Dart Aerospace Ltd

WORK ORDER CHANGES

| W/O: | | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
|------|------|------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | | | | | | |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE (NCR)

| NCR: | | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
|------|------|--------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

Work Order ID 74779

October 6, 2011 11:35:39 AM

74779

Page 3

Item ID: D3196-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Bar

Stop

NS2

Start Date: 10/06/11 Start Qty: 4.00

4

Cust Item ID:

Required Date: 10/17/11 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

QC3- Inspect Part Finish

0.00

160

QC

Quality Control

8x / 41-11-02
COUNTEd
MEASUREd

170

Identify as per dwg & Stock Location:

8x

0.00

170

Packaging

Packaging

Memo

0.00

8x SP 11-11-02

180

QC21- Final Inspection - Work Order Release

0.00

180

QC

Quality Control

Memo

0.00

11/11/03 (1)

11/11/02 (1)

Dart Aerospace Ltd

WORK ORDER CHANGES

| W/O: | | PROCEDURE CHANGE | By | Date | Qty | Approval | Approval |
|------|------|------------------|----|------|-----|-------------------------|--------------|
| DATE | STEP | | | | | Chief Eng / Prod Mgr | QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE (NCR)

| NCR: | | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
|------|------|--------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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| | | | | | | | | |

NOTE: Date & initial all entries

Picklist Print

Page 1

October 6, 2011 11:35:45 AM

Work Order ID: 74779

74779
D3196-1

Parent Item: D3196-1

Parent Item Name: Bar

Start Date: 10/06/11

Required Date: 10/17/11

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev: A New Issue 05-11-08 JLM

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| M6061T6B0.750X01.50 0 | | Purchased | No | | | 100 | f | 23.5000 | 2.183 | 9.191579 | | | |

M6061T6B0 750X01 500
6061-T6 Bar .750 X 1.50

**

| <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|-----------------|----------------|-----------------|
| MAT003 | 23.5 | |
| 116604 | 1.5 | |
| 118182 | 2 | |
| 118844 | 20 | |

18.384

F.K. 11/10/30

Dart Aerospace Ltd

WORK ORDER CHANGES

| W/O: | | PROCEDURE CHANGE | By | Date | Qty | Approval | Approval |
|------|------|------------------|----|------|-----|-------------------------|--------------|
| DATE | STEP | | | | | Chief Eng / Prod Mgr | QC Inspector |
| | | | | | | | |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE (NCR)

| NCR: | | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
|------|------|--------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

| | | |
|-----------------------|--------------|-------------|
| DART AEROSPACE LTD | Work Order: | 74779 |
| Description: Bar | Part Number: | D3196-1 |
| Inspection Dwg: D3196 | Rev: C | Page 1 of 1 |

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

| | | |
|--------------------------|-------------------------|-------------------------|
| Measured by: <u>F.L.</u> | Audited by: <u>J.A.</u> | Prototype Approval: N/A |
| Date: <u>11/10/13</u> | Date: <u>11/11/01</u> | Date: N/A |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|-----------------------------------|------------|----------|
| A | 04.04.20 | New Issue | KJ/RF | |
| B | 06.10.24 | Dwg Rev. updated | KJ/JLM | |
| C | 07.03.21 | Dimensions updated per Dwg rev. C | KJ/JLM | RE |

Dart Aerospace Ltd

WORK ORDER CHANGES

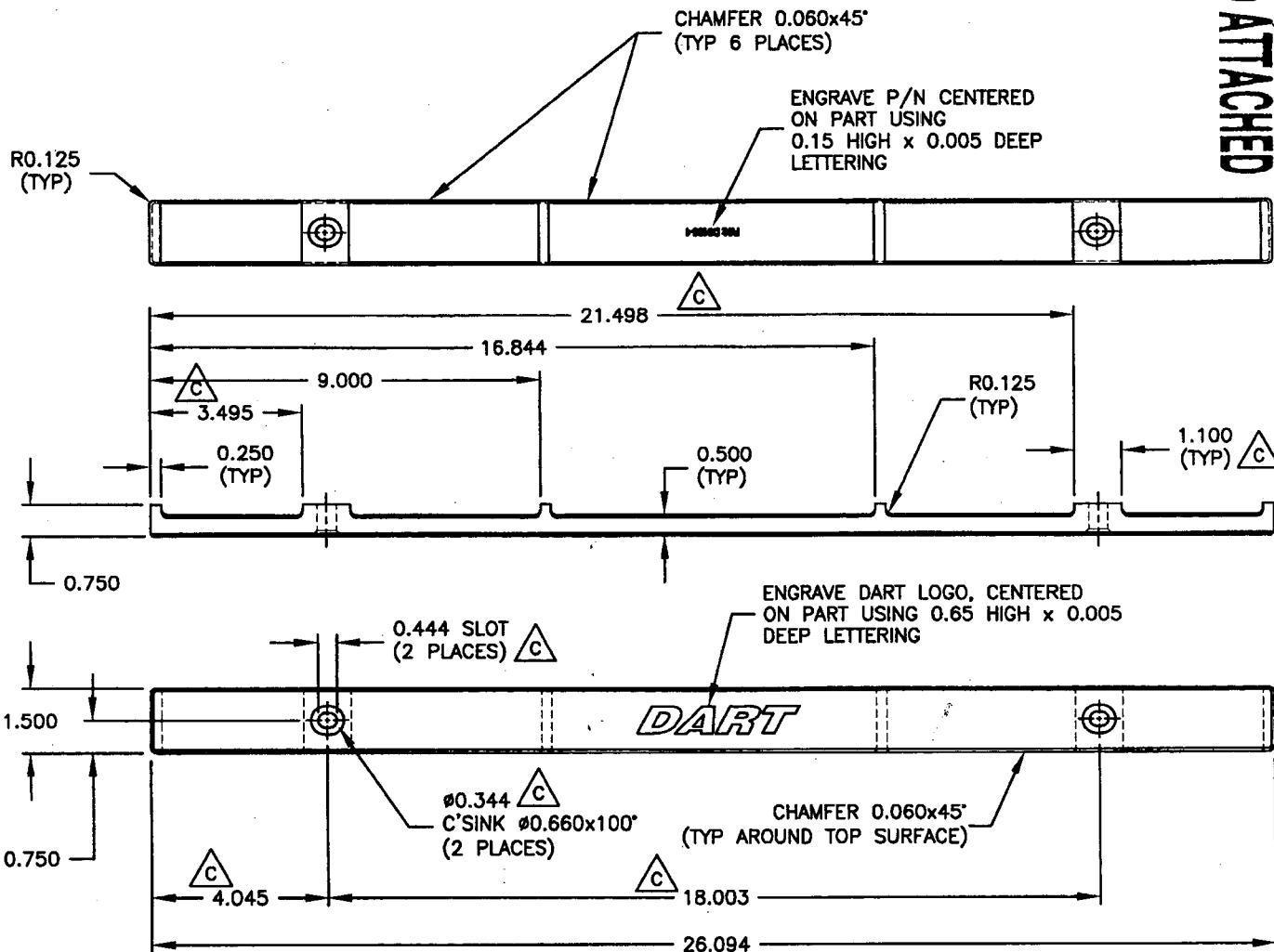
| W/O: | | PROCEDURE CHANGE | By | Date | Qty | Approval | Approval |
|------|------|------------------|----|------|-----|-------------------------|--------------|
| DATE | STEP | | | | | Chief Eng / Prod Mgr | QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE (NCR)

| NCR: | | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
|------|------|--------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries



D3196-1 BAR

- 1) MATERIAL: 6061-T6/T651 ALUMINUM (QQ-A-200/8 OR QQ-A-225/8) (REF DART SPEC. M6061T6B)
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1 POWDER COAT GREY SANTEX (4.3.5.6) PER DART QSI 005 4.3
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT

WITHOUT NOTICE
WORK ORDER
NO. 74779 ML 5
11/10/06

DART

| DESIGN | DRAWN BY | DART AEROSPACE LTD |
|------------------|-----------------------------|-----------------------------|
| <i>GP</i> | <i>AS</i> | HAWKESBURY, ONTARIO, CANADA |
| CHECKED | APPROVED | DRAWING NO. |
| <i>PH</i> | <i>AS</i> | D3196 |
| DATE 06.10.31 | TITLE BAR | SCALE 1:4 |
| A 03.06.25 | NEW ISSUE | SHEET 1 OF 3 |
| B 06.09.25 | ADD D3196-5 | |
| C 06.10.31 | ADD SLOTS ON -1; REMOVED -5 | |

Dart Aerospace Ltd

WORK ORDER CHANGES

| W/O: | | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
|------|------|------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | | | | | | |
| | | | | | | | |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

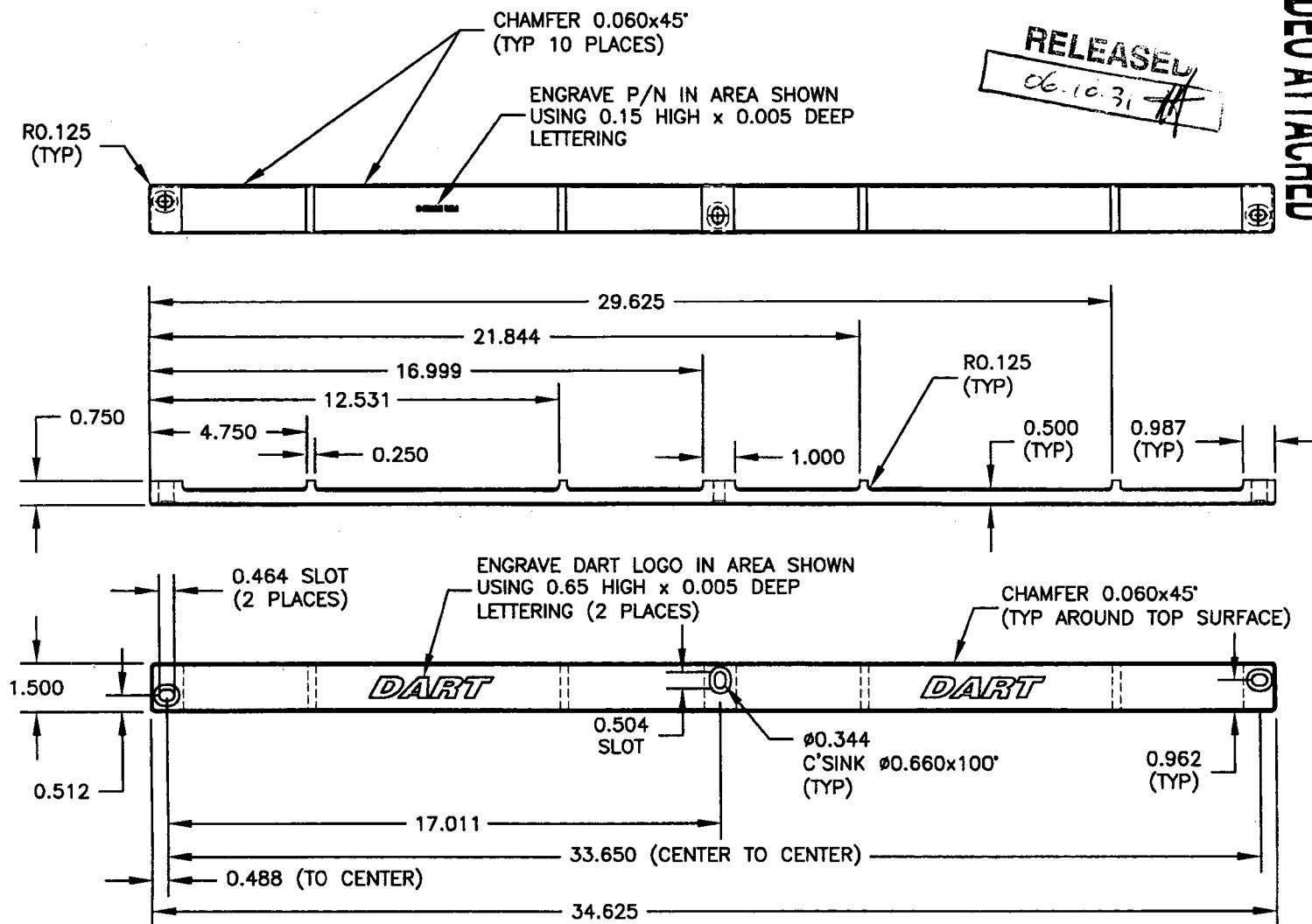
WORK ORDER NON-CONFORMANCE (NCR)

| NCR: | | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
|------|------|--------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

74779

DEO ATTACHED

RELEASED
06.10.31

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DART

| | | | | |
|---------|----------|----------|----|-----------------------------|
| DESIGN | 47 | DRAWN BY | JL | DART AEROSPACE LTD |
| CHECKED | PH | APPROVED | MM | HAWKESBURY, ONTARIO, CANADA |
| DATE | 06.10.31 | | | DRAWING NO. |
| | | | | D3196 |
| | | | | TITLE |
| | | | | BAR |
| | | | | REV. C |
| | | | | SHEET 2 OF 3 |
| | | | | SCALE |
| | | | | 1:5 |

D3196-3 BAR

- 1) MATERIAL: 6061-T6/T651 ALUMINUM (QQ-A-200/8 OR QQ-A-225/8)
(REF DART SPEC. M6061T6B)
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1
POWDER COAT GREY SANTEX (4.3.5.6) PER DART QSI 005 4.3
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

WORK ORDER CHANGES

| W/O: | | PROCEDURE CHANGE | By | Date | Qty | Approval | Approval |
|------|------|------------------|----|------|-----|-------------------------|--------------|
| DATE | STEP | | | | | Chief Eng / Prod Mgr | QC Inspector |
| | | | | | | | |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

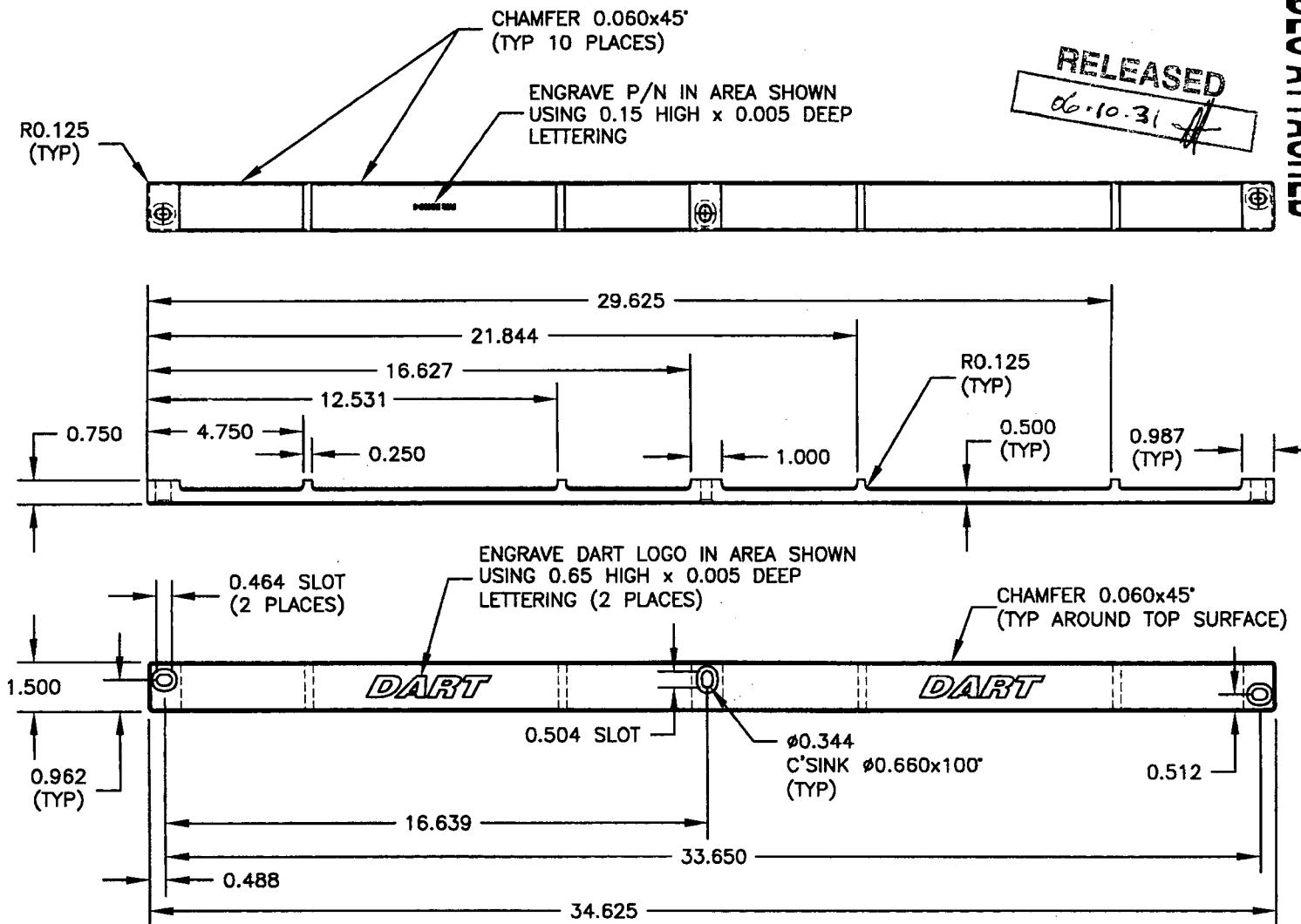
WORK ORDER NON-CONFORMANCE (NCR)

| NCR: | | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
|------|------|--------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

74779

DEO ATTACHED

RELEASED
06-10-31**D3196-4 BAR**

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| DESIGN | DRAWN BY | DART AEROSPACE LTD |
|----------|----------|-----------------------------|
| CHECKED | APPROVED | HAWKESBURY, ONTARIO, CANADA |
| PT | PT | DRAWING NO. |
| DATE | DATE | TITLE |
| 06.10.31 | 06.10.31 | BAR |
| | | REV. C |
| | | SHEET 3 OF 3 |
| | | SCALE |
| | | 1:5 |

WORK ORDER CHANGES

| W/O: | | PROCEDURE CHANGE | By | Date | Qty | Approval | Approval |
|------|------|------------------|----|------|-----|-------------------------|--------------|
| DATE | STEP | | | | | Chief Eng / Prod Mgr | QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE (NCR)

| NCR: | | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
|------|------|--------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries

74779

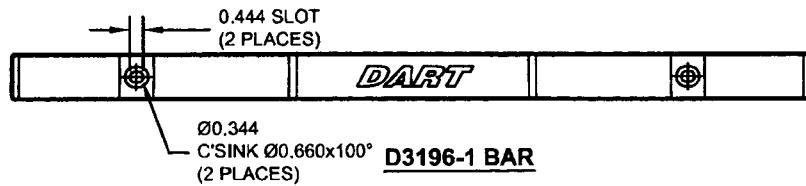
| DRAWING NO. | TITLE | REV. C | DART AEROSPACE LTD ENGINEERING ORDER | D.E.O. NO. | SHEET NO. | SCALE |
|-----------------|-------------------|--------|---|--------------------|--------------------|-------|
| D3196 | BAR | | | D3196-C-1 | SHEET 1 OF 2 | NTS |
| DRAWN <i>AS</i> | CHECKED <i>AS</i> | | MFG. APPR. <i>AS</i> | APPROVED <i>AS</i> | DE APPR. <i>AS</i> | |
| DATE 08.08.27 | DATE 08.08.28 | | DATE 08.08.29 | DATE 08.08.29 | DATE 08.09.04 | |

SHEET 1 MODIFY SLOT DIMENSIONING ON D3196-1 AS SHOWN:

IS:

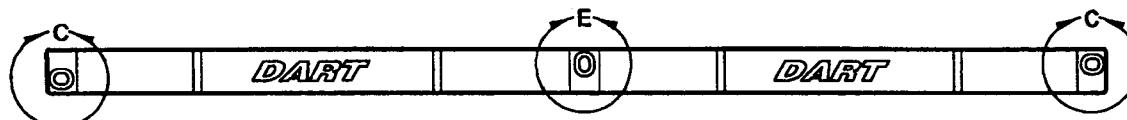
D3196-1 BAR

WAS:

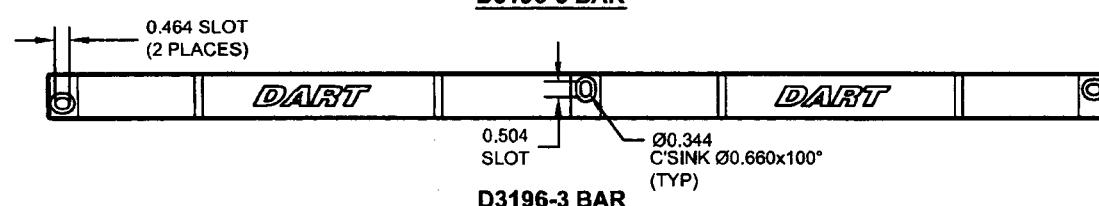
D3196-1 BAR

SHEET 2 MODIFY SLOT DIMENSIONING ON D3196-3 AS SHOWN:

IS:

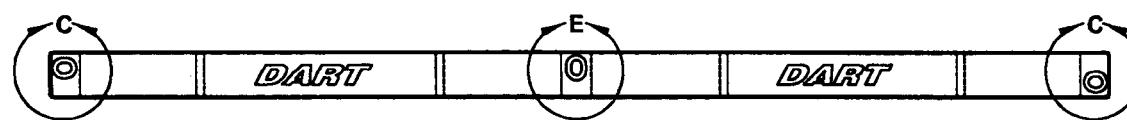
D3196-3 BAR

WAS:

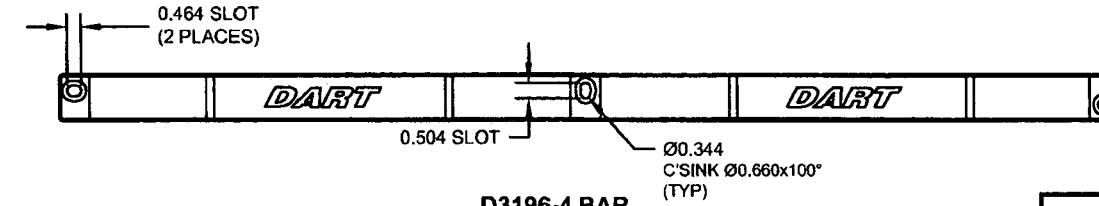
D3196-3 BAR

SHEET 3 MODIFY SLOT DIMENSIONING ON D3196-4 AS SHOWN:

IS:

D3196-4 BAR

WAS:

D3196-4 BAR

Dart Aerospace Ltd

WORK ORDER CHANGES

| W/O: | | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
|------|------|------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | | | | | | |
| | | | | | | | |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

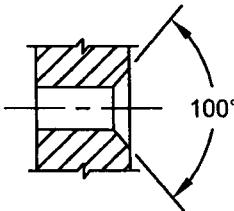
WORK ORDER NON-CONFORMANCE (NCR)

| NCR: | | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
|------|------|--------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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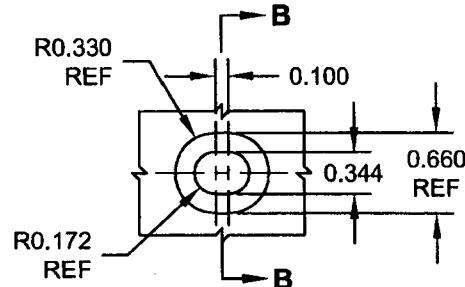
NOTE: Date & initial all entries

74779

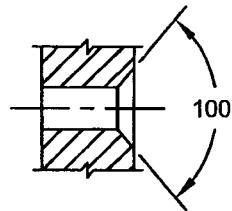
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|----------------------|-------------------|----------------------|---|--------------------|-------------------------|---------------------------|--------------|
| DRAWING NO. D3196 | TITLE BAR | REV. C | DART AEROSPACE LTD ENGINEERING ORDER | | D.E.O. NO. D3196-C-1 | SHEET NO. SHEET 2 OF 2 | SCALE NTS |
| DRAWN <i>AS</i> | CHECKED <i>AS</i> | MFG. APPR. <i>AS</i> | APPROVED <i>AS</i> | DE APPR. <i>AS</i> | | | |
| DATE 08.08.27 | DATE 08.08.28 | DATE 08.08.29 | DATE 08.08.29 | DATE 08.09.04 | DATE 08.09.04 | | |



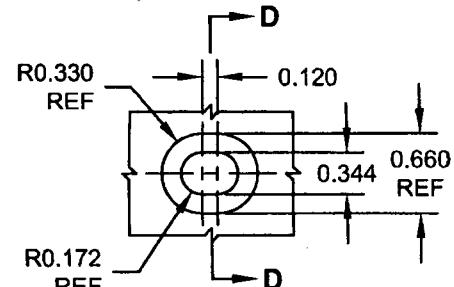
SECTION B-B



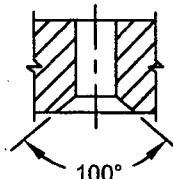
DETAIL A



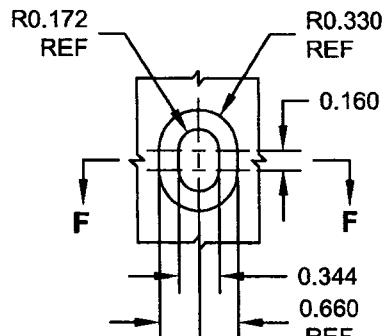
SECTION D-D



DETAIL C



SECTION F-F



DETAIL E

NOTE: THIS CHANGE HAS BEEN DONE TO CLARIFY SLOT DIMENSIONS ONLY. NO CHANGES HAVE BEEN MADE TO THE PARTS
 SEE NCR 08-051 FOR FURTHER INFORMATION
 ALL OTHER INFORMATION REMAINS UNCHANGED

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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NOTE: Date & initial all entries